

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/013023

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ A61K38/18, 45/00, A61P1/02, 19/04, 19/08, A61L27/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ A61K38/18, 45/00, A61L27/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
CAPLUS/MEDLINE/EMBASE/BIOSIS (STN), JSTplus (JOIS)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KURIHARA, H. et al., Neurotrophins in cultured cells from periodontal tissues, Journal of Periodontology, 2003, Vol.74, No.1, pages 76 to 84	1-17,26,27
X	HARADA, F. et al., The involvement of brain-derived neurotrophic factor (BDNF) in the regeneration of periodontal Ruffini endings following transection of the inferior alveolar nerve, Archives of Histology and Cytology, 2003, Vol.66, No.2, pages 183 to 194	1-17,26,27
X	TSUBOI, Y. et al., Mitogenic Effects of Neurotrophins on a Periodontal Ligament Cell Line, Journal of Dental Research, 2001, Vol.80, No.3, pages 881 to 886	1-17,26,27

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
02 November, 2004 (02.11.04)Date of mailing of the international search report
07 December, 2004 (07.12.04)Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Hiroshi YOSHINO, "Saikin no Wadai Shishu Soshiki to Neurotrophin", Hirodai Shishi, 1998, Vol.30, page 236	1-17, 26, 27

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 18-25, 28, 29
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 18 to 25, 28 and 29 pertain to methods for treatment of the human body by therapy and thus relate to a subject matter which this International Searching Authority is not required, under the provisions of Article 17(2)(a)(i) of the PCT (continued to extra sheet.)
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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Continuation of Box No.II-1 of continuation of first sheet(2)

and Rule 39.1(iv) of the Regulations under the PCT, to search.

<Subject of search>

Even though the statement in the description is discussed, it is unclear what specific substances are included and what are not in the scope of the term "neurotrophic factor" as used in claims 1, 10 and 26, except brain-derived neurotrophic factor, nerve growth factor, neurotrophin 3 and neurotrophin 4/5 cited as specific examples in the description, which makes the scope of the present invention unclear.

Namely, claims 1, 10 and 26 and the description do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out.

Such being the case, prior art documents were searched in this international search report based on the substances specifically cited in the description.